

SIMONDS GUIDE

For
CARPENTERS

WARRANTED
The Simonds Saw
WORKS
FITCHBURG, MASS. CHICAGO, ILL.
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SIMONDS GUIDE

for **CARPENTERS**

A book of useful rules and
illustrations gathered from
different sources. Entirely
revised.

SIMONDS SAW AND STEEL CO.

Fitchburg, Mass.

Boston, Mass.

Chicago, Ill.

Lockport, N. Y.

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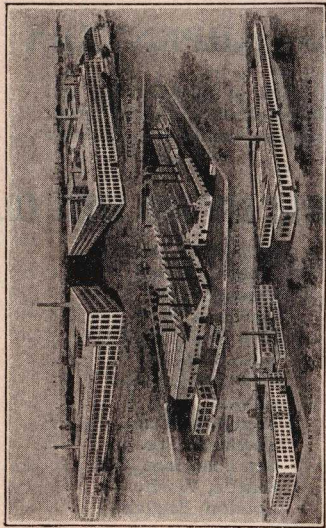
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INTRODUCTION

IN presenting this "Simonds Guide for Carpenters," we desire to provide for you a handy reference book of rules and other information that is usually hard to remember and yet must be had when it is wanted. As a book of value to Carpenters, we know of no other publication containing the practical information to be found in these pages.

But, first, last, and all the time, our object is to direct your attention to Simonds Saws illustrated in this book; and to create an interest which will result in a trial of a Simonds Saw. We are positive the quality is superior and a trial is all we want to win your confidence.

Very truly yours,

SIMONDS SAW AND STEEL CO.

**Ask Your
Hardware
Dealer
for
SIMONDS**

Pronounced Si-monds

**HAND
SAWS**

Regardless of its cost
This book should not be lost;
Remember its location
For it contains valuable information.

SOME POINTS FOR CARPENTERS

Rafter and stair sketches on the following pages.

A few directions here in framing rafter and stair stringers.

These instructions are good for any mechanic to know.

There are four principles or elements that apply to all trades: The point, line, superfice, and cube. Appreciation of the plumb, square and level is assumed and without knowing their application and importance one will never become a good mechanic.

A **Point** is that which has position without length, breadth, or thickness.

A **Line** is that which has length without breadth, or thickness.

Superfice is that which has length and breadth, without thickness.

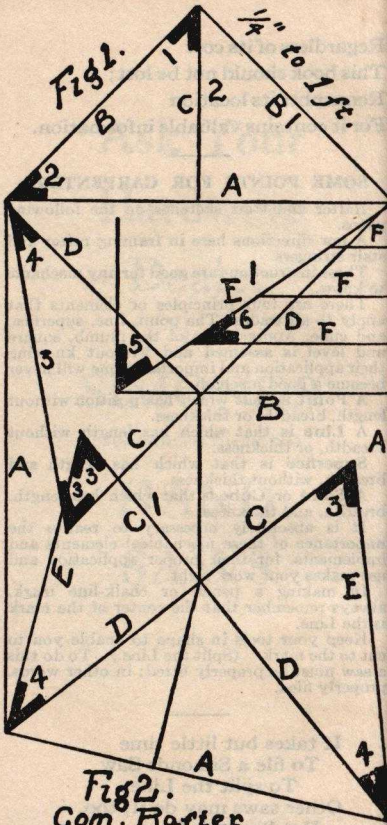
A **Solid** or **Cube** is that which has length, breadth, and thickness.

It is absolutely necessary to realize the importance of these mechanical elements and implements, for their proper application and use makes your work right.

In making a pencil or chalk-line mark, always remember that the center of the mark is the **Line**.

Keep your tools in shape to enable you to cut to the mark. (Split the Line.) To do this a saw must be properly fitted; in other words, properly filed.

It takes but little time
To file a Simonds Saw
To split the Line;
Other saws may do it, too,
But Simonds Saws
Will do it true.



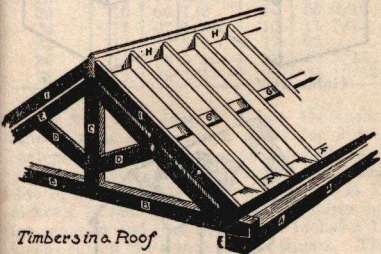
Rafters and Their Cuts

On the opposite page you will find a drawing and if you will study it just a little you will find how easy it is to get all the length of rafters for any pitch or any shape building. Everything in the drawing, Gable End, Hips, Jacks, is lying down flat. A A A A is the outside plate line. B B B is the common rafter of a square pitch roof. C C C is the rise. D D D D is the run of hips or valleys. E E E E is the lengths of hips or valleys. F F F is the jacks and length of them just as they lay.

No. 1 is the top cut of the common rafter. No. 2 is the bottom cut. No. 3 is the down top cut of hips or valleys. No. 4 is the bottom or plate cut. No. 5 is the side or bevel cut for hips or valleys. No. 6 is the side of bevel cut of jack. Of course, the down cut for jack is always the same as the common rafter.

B 1 is the common rafter laid down. E 1 is hip or valley laid down. F F F is the jack: that is, how to get the lengths and cuts. C 1 is the rise, same as C. Fig. 2 is a common rafter. The dotted line is where to measure and get your length from.

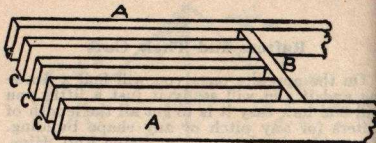
The sketch is drawn to scale, $\frac{1}{4}$ " to one foot.



Timbers in a Roof

AA WALL PLATE
BB TIE BEAM
CC KING POST
DD STRUTS
EE PRINCIPAL RAFTERS

FF POLE PLATE
GG PURLIN
HH RIDGE PIECE
II COMMON RAFTERS



Timbers with Header

AA Timbers B Header CCC Tail Beams

Some Terms that It Would Be Well to Learn

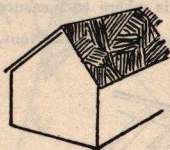
"Rise" the height required for the pitch of the roof.

"Run" the horizontal distance covered.

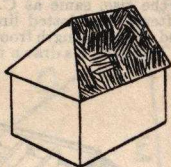
"Hip Roof" a roof having sloping ends and sloping sides, the "Hip Rafter" being the rafter which extends from the wall plate to the ridge in the angle of the hip roof.

"Valley" the place of meeting of two slopes of the roof running in different directions.

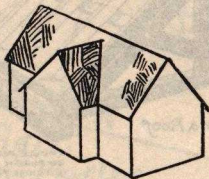
"Jack Rafters" shorter rafters used in constructing hip and valley roofs.



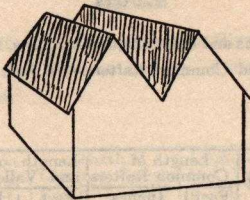
Gable Roof



Hip Roof



Valley Roof



M Roof

Rafters

Lengths and Cuts in figures, for Hips, Valleys, Jacks, and Common Rafters. 4" rise to the foot.

Width of Building in feet	Length of Common Rafters		Length of Hip and Valley Rt's	
	Feet	Inches	Feet	Inches
10	5	03 1/4	7	03 1/12
12	6	03 7/8	8	08 1/2
14	7	04 1/2	10	01 11/12
16	8	05 2/12	11	07 4/12
18	9	05 10/12	13	00 3/4
20	10	06 1/2	14	06 2/12
22	11	07 1/8	15	11 7/12
24	12	07 3/4	17	05
26	13	08 5/12	18	10 5/12
28	14	09 1/12	20	03 10/12

The first long Jack is 2 feet 1 1/4 inches shorter than the common rafter for 2 feet centers. The plumb or down cut for Hips and Valleys, 4 inches x 16 1/2 inches on the 4 inch side of square. The bevel or side cut is 12 inches x 12 inches. The plumb, or down cut for common and jack rafters is 4 inches x 12 inches cut on the 4 inch side of square. The bevel or side cut for jack is 12 inches x 12 inches.

Simonds Saws are the Best

Rafters

Lengths and cuts in figures for Hips, Valleys, Jacks and Common Rafters. 6 inch rise to the foot.

Width of Building in Feet	Length of Common Rafters		Length of Hips and Valley Rt's	
	Feet	Inches	Feet	Inches
10	5	07 1/12	7	06
12	6	08 1/2	9	00
14	7	09 11/12	10	06
16	8	11 4/12	12	00
18	10	00 3/4	13	06
20	11	02 2/12	15	00
22	12	08 10/12	16	06
24	13	10 8/12	18	00
26	14	06 5/12	19	06
28	15	07 10/12	21	00

The first long Jack is 2 feet 2 $\frac{7}{8}$ inches shorter than the Common Rafter for 2 feet centers. The plumb or down cuts for Hips and Valleys is 6 inches x 17 inches on the 6 inch side of square. The bevel or side cut is 12 inches x 13 $\frac{1}{2}$ inches cut on the 13 $\frac{1}{2}$ inch side of square. The plumb or down cut for Common and Jack rafters is 6 inches x 12 inches cut on the 6 inch side of square. The bevel or side cut for Jacks is 12 inches x 13 $\frac{1}{2}$ inches cut on the 13 $\frac{1}{2}$ inch side of square.

Simonds Saws Satisfy

Rafters

Lengths and cuts in figures for Hips, Valleys, Jacks, and Common Rafters. 8 inch rise to the foot.

Width of Building in feet	Length of Common Rafters		Length of Hips and Valley Rt's	
	Feet	Inches	Feet	Inches
10	6	00 1/12	7	09 3/4
12	7	02 1/2	9	04 1/2
14	8	04 11/12	10	11 1/4
16	9	07 3/8	12	06
18	10	09 10/12	14	00 3/4
20	12	00 1/4	15	07 1/2
22	13	02 5/8	17	02 1/4
24	14	05 1/12	18	09
26	15	07 1/2	20	03 3/4
28	16	09 11/12	21	10 1/2

The first long Jack is 2 feet 4 ⁷/₈ inches shorter than the Common Rafter for 2 feet centers. The plumb or down cut for Hips and Valleys is 8 inches x 17 inches cut on the 8 inch side of square. The bevel or side cut is 12 inches x 14 ¹/₂ inches cut on the 14 ¹/₂ inch side. The plumb or down cut for Common and Jack Rafters is 8 inches x 12 inches cut on the 8 inch side of square. The bevel or side cut for Jack is 10 inches x 12 inches cut on the 12 inch side of square.

*Cut bevels and levels with
Simonds Saws*

Rafters

Lengths and cuts in figures for Hips, Valleys, Jacks, and Common Rafters. 10 inch rise to the foot.

Width of Building in Feet	Length of Common Rafters		Length of Hips and Valley Rt's	
	Feet	Inches	Feet	Inches
10	6	06 1/8	8	02 4/12
12	7	09 3/4	9	10
14	9	01 4/12	11	05 8/12
16	10	04 11/12	13	01 4/12
18	11	08 7/12	14	09
20	13	00 1/4	16	04 8/12
22	14	08 10/12	18	00 4/12
24	15	07 5/12	19	08
26	16	11 1/2	21	01 8/12
28	18	02 8/12	22	04 4/12

The first long Jack is 2 feet 7¼ inches shorter than the Common Rafter for 2 feet centers. The plumb or down cut for Hips and Valleys is 10 inches x 17 inches cut on the 10 inch side of square. The bevel or side cut is 9½ inches x 12 inches cut on the 12 inch side. The plumb or down cut of Common and Jack rafters is 10 inches x 12 inches cut on the 10 inch side of square. The bevel or side cut of Jack is 9½ inches x 12 inches cut on the 12 inch side of square.

Long cuts and Bevel cuts are all easy cuts with a Simonds Saw

Rafters

Lengths and cuts in figures for Hips, Valleys, Jacks and Common Rafters. 12 inch rise to the foot.

Width of Building in Feet	Length of Common Rafters		Length of Hips and Valley Rt's	
	Feet	Inches	Feet	Inches
10	7	00 7/8	8	07 3/4
12	8	05 10/12	10	04 1/2
14	9	10 3/4	12	01 1/4
16	11	03 3/4	13	10
18	12	08 3/4	15	06 3/4
20	14	08 11/12	17	03 1/2
22	15	06 8/12	19	00 1/4
24	16	11 3/4	20	09
26	18	04 5/8	22	05 3/4
28	19	09 7/12	24	02 1/2

The first long Jack is 2 feet 10 inches shorter than the Common Rafter for 2 feet centers. The plumb or down cut for Hips and Valleys is 12 inches x 17 inches cut on the 12 inch side of square. The bevel or side cut is 9 inches x 12 inches cut on the 12 inch side. The plumb or down cut for Common and Jack rafters is 12 inches x 12 inches. The bevel or side cut of Jack is 8½ inches x 12 inches cut on the 12 inch side.

If you want to rest while the other fellows work, buy a Simonds Saw

HAND SAW SETTING AND FILING

The First Step

Joint the saw, slightly crowning in the center, with an 8-inch flat file. Then file the teeth to a uniform size, but don't file them to a point.

Setting a Saw

Set the saw, using a hammer set, with light blows, not striking hard or smashing the teeth.

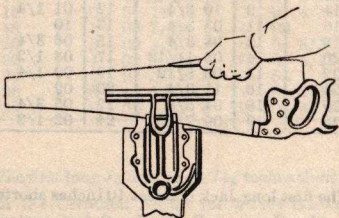


Fig. 1

The teeth should be set a little more than you wish them when done, to allow side dressing. Run the flat file lightly over each side of the saw teeth so as to bring them into line. Now see if all the teeth are dull (blunt). If any are sharp, joint it once more, as in Fig. 1. The saw is now ready to file.

To File for All-Round Work and Fast Cutting

Fasten the saw clamp to an 8-inch x 2-inch plank, secured to a north window, for the best light is none too good. The top of the clamp should be level with the armpit, in

either sitting or standing position, though the latter is preferable.

Place the saw in the clamp, with the handle to the left, and file from the heel to the toe of the saw. The pitch of the file is shown in Figs. 2 and 5. In going over the saw in this position do not file the teeth to a point, but till file deep enough to leave the points

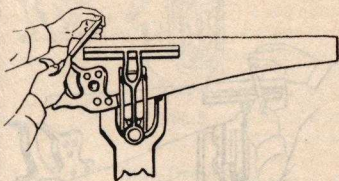


Fig. 2

equal distances apart, after the saw is filed from the other side. If one tooth is larger than the others, don't roll the file over to file more off the large tooth, but keep the file in the same position as to pitch, and crowd against the large tooth and bear lightly on the other till the large tooth is down like the others.

Grasp the handle of your file firmly as shown in Fig. 2, with the thumb up (not the back of the hand up), and hold it securely till you have filed across the clamp. After the saw has been moved for another part to be filed, place the file in the last tooth filed with the thumb of the left hand on the top of the file above the saw, as shown in Fig. 2. Press on the file in different ways till it fills the space, thus getting the angle the same as

you have just used it, and go on as before till you have filed across the saw.

Place the saw in the clamp with the handle to the right. Filing this side last brings the filer directly in front of the clamp, squarely facing the saw, and gives the only position to see the points of all the teeth and the file, at the same time. File the teeth to a sharp point only.

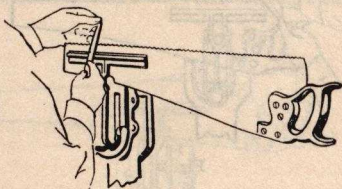


Fig. 3

Begin this time filing from toe toward the heel, as shown in Fig. 3. Hold the file with the pitch and bevel the same as on the other side. To prove you have the same pitch and bevel, sight over the teeth, as shown in Fig. 4.

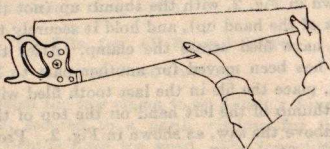


Fig. 4

and see if the groove is in the center. If not in the center, change the pitch and bevel till it does show in the center, and keep the file in that position across the saw. The teeth on both sides must be of equal length.

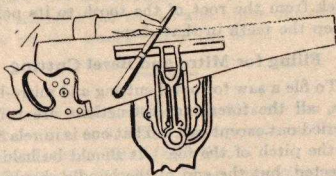


Fig. 5

Side Dressing

Now place the saw on a straight board and then run the flat file over the side of the part from the toe to the heel, one run of the file on each side of the saw. Try the saw and see how it cuts. If the set is too wide, another run of the file on each side, or perhaps two, may be required to reduce the set to the width required.

It will be seen that a part of the sides of the teeth are flat. For the next two or three filings, no setting of the saw will be required (unless it has been run upon a nail), but side-dress the teeth with a hard oilstone, instead of the file, to take off the wire edge and smooth them.

It will be seen that the bevel of the teeth will be on the front or cutting edge, where it should be, and the back of the teeth will be nearly square across, and there will be a long lance point on each tooth.

NOTE.—All saws, when they leave the Simonds factory, have the proper hook. That is to say, the shape of the teeth is proper. The rip saw is nearly straight (plumb) up and-down the front of the teeth. The cross cut saw has the front of the teeth sloping w back from the root of the tooth to its point. Keep the teeth in that shape.

Filing for Mitre and Bevel Cutting

To file a saw for bevel cutting and mitre-bo use, all the foregoing instructions are to be carried out except one. That one is in relation to the pitch of the file. It should be held a directed, but the end of the handle should be about 2 inches lower than the point of the file or about 2 inches fall in the foot. This pitch must be made without rolling the file. If properly carried out it will change the depth of the teeth. The bevel on the front gives a bevel to the back and reduces the lance point to a blunter and stronger point and is better for joinery work, but not so good for rough carpentry and framing.

(Wipe your saw dry and oil with sperm oil.)

To File a Rip Saw

A rip saw should be filed square (straight) across the front of the teeth, with the handle of the file lowered from 2 inches to 3 inches, giving a bevel on the top of the teeth. A thick blade requires more bevel than a thin one.

Hints as to Care

OIL YOUR SAW.—Always keep on hand a can of sperm oil, also a piece of fine emery cloth. Scour your saw clean, wipe it dry and oil it. It will require less set and cut fast and with less labor.

TO STRAIGHTEN A BENT SAW.—Don't try to straighten a crooked saw on an anvil with a hammer. If you do, every blow will stretch the saw and ruin it for good work. Use a mallet on the anvil, or better, use a block of timber cut off straight and planed smooth, and hammer the crooks and kinks out of the saw on the *planed end* of the block.

FILES TO USE.—The best files to use are: For all 4, 5, 6, 7 and 8 point saws, a 6-inch Simonds Special Hand Saw file.

For 9, 10, 12-point and all fine-point saws, a Simonds 5-inch Special Hand Saw file.

Use a good file handle and have your file set straight in the handle.

Don't slam your saw around and twist it and bend it all out of shape. It is made to saw straight. Remember that a hand saw has a spring temper and, like a spring, it can be kinked.

In setting your saw, be careful that the set is on the tooth, not on the blade, and, keep in mind that on fine work, the less set you have on your thin back saw, the cleaner cut you will make, especially with Simonds Saws.

Rise
7"

Run
9"

Floor

Header

Stairwell

Header

14

13

12

11

10

9

8

7

6

5

4

3

2

1

14

13

12

11

10

9

8

7

6

5

4

3

2

1

8' 2"

9' 9"

6' 4"

Stairs

How to get the Rise, and Run, and the size of well.

First, get your rise by measuring from the top of first floor to the top of the second floor. In the sketch on the opposite page this is 8 feet 2 inches over all. 8 feet 2 inches is 98 inches. Now, you want your stair rise about 7 inches so you say 7 in 98, 14 times; so you have 14 rises. Got to have 14 treads and want tread about 9 inches wide; so, say 9 times 14 is 126 inches. The top floor makes one tread, so all you need is 9 times 13 or 117 inches. That is for the run of your stairs. The whole run for these stairs is 9 feet 9 inches. But one tread at the head of the stairs is the floor and there is one less at the bottom (see sketch) so the stair-well is only 108 inches or 9 feet between headers.

Compass

Your watch is a compass. Place in the palm of your hand. Turn it till the hour hand points at the sun. Then the South is just half-way between the hour hand and 12 o'clock.

Facts for Builders

1,000 shingles, laid 4 inches to the weather, will cover 100 square feet of surface, and 5 lbs. of shingle nails will fasten them on. As 16-inch shingles are laid 5 inches to the weather, 1,000 shingles (4 bunches) will lay 125 square feet.

“Show me a man who has never made a mistake, and I will show you one who has never tried anything.”

One fifth more siding and flooring is needed than the number of square feet of surface to be covered, because of the lap in the siding and matching.

1,000 laths will cover 70 yards of surface, and 11 lbs. of lath nails will nail them on. Eight bushels of good lime, 16 bushels of sand, and one bushel of hair, will make enough good mortar to plaster 100 square yards.

A cord of stone, three bushels of lime, and a cubic yard of sand, will lay 100 cubic feet of wall.

Five courses of brick will lay 1 foot in height on a chimney. 6 bricks in a course will make a flue of 4 inches wide and 12 inches long, and 8 bricks in a course will make a flue 8 inches wide and 16 inches long.

Cement, one bushel, and sand, two bushels, will cover $3\frac{1}{2}$ square yards one inch thick; $4\frac{1}{2}$ square yards, $\frac{3}{4}$ inch thick; $6\frac{3}{4}$ square yards, $\frac{1}{2}$ inch thick. One bushel cement and one of sand will cover $2\frac{1}{4}$ square yards one inch thick: 3 square yards, $\frac{3}{4}$ inch thick; and $4\frac{1}{2}$ square yards, $\frac{1}{2}$ inch thick.

Chimneys

Size of Chimney	Flue	Sized Flue	Number of Bricks per foot
16 x 16	1	8 x 8	30
16 x 24	1	8 x 16	40
16 x 28	2	8 x 8	50
16 x 40	3	8 x 8	70
16 x 52	4	8 x 8	90
20 x 20	1	12 x 12	40

Nails required per M feet of:

Shingles.....	3½ to 5 lb. of 4d
Laths.....	6½ lb. of 3d
Clapboard.....	18 lb. of 6d
Boarding.....	20 lb. of 8d
Studding.....	3 lb. of 8d
Furring.....	45 lb. of 8d
Inside Finish.....	30 lb. of 8d
Top Floor match.....	30 lb. of 8d
Top Floor square edge.....	30 lb. of 8d

Average Number of Nails per Pound

Size, Penny	Length, Inches	Com. Wire	Fin. Wire
3	1¼	566	805
4	1½	317	583
5	1¾	270	500
6	2	182	308
7	2¼	160	236
8	2½	105	187
9	2¾	96	171
10	3	68	120
12	3¼	63	112
14	3½	49	90
20	4	31	62
30	4½	24	
40	5	17	
50	5½	13	
60	6	10	

Concrete

For tanks and cisterns, the mixture should be

1 part Portland Cement

2 parts Sand

3 parts Gravel or Crushed Stone that will pass a $\frac{1}{4}$ inch sieve.

For tank or cistern, make the inside bottom smaller than the top, 2 inches or so.

Concrete

For cellar floors the mixture should be:

1 part pure Portland Cement

2 parts clean sharp Sand

4 parts small clean broken Stone or Gravel

Cement Topping

For cellar floor:

1 part Portland Cement

3 parts clean sharp Sand

Well troweled.

Rich mixture:

1 part Cement

2 parts Sand

4 parts Stone

Medium mixture:

1 part Cement

$2\frac{1}{2}$ parts Sand

5 parts Stone

Ordinary mixture:

1 part Cement

3 parts Sand

6 parts Stone

Lean mixture:

1 part Cement

4 parts Sand

8 parts Stone

CONCRETE STEPS AND STAIRS

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Forms

The sketches on next page show forms for concrete steps that are built on the ground and not reinforced. The forms for this type of step construction consist of two planks braced against the side walls by 4 x 4's and wedges. To these are nailed 2 x 4's which come to within a couple of inches of the treads. To the 2 x 4's are nailed the cross planks which form the risers. In actual construction it is better to fasten the 2 x 4's to the planks in their proper position before the planks are braced against the wall.

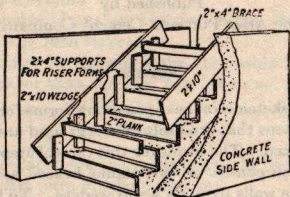
The forms for the risers can be stripped 24 hours after the concrete is poured and the face of the riser finished to a smooth surface by rubbing with a wood float dipped in water and sand.

Where concrete steps are built without the side walls a different form is used. It is made of planks cut according to the risers and treads of the steps, and the forms for the risers are nailed to the plank. This form is practically the same as for reinforced concrete steps.

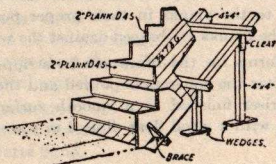
Construction

As soon as the concrete base is poured the treads should be finished. The mixture should not be too wet or the concrete at the bottom of the stairs will be forced over the riser forms by

the pressure of the concrete above. A 1:2½:5 mixture may be used for the base of the steps with a ¾-inch surface coat of 1:2 mortar.



Forms for Stairs between Side Walls



Forms for Self-supporting Stairs

Reinforced Concrete Stairs

Stairs that are not constructed on an earth fill must be self-supporting, and hence, must be reinforced. The reinforcing steel should be placed in the bottom of the slab, one inch from the under side, running lengthwise, and the amount will vary according to the length of the slab. The reinforcing for different length stairs is shown on next page.

Table of Reinforcement for Concrete Stairs

Steps No. of	Clear Span		Thick- ness Slab	Long. Reinforce.	
				Diam.	Spacing Rods
	Feet	Ins.	Ins.	Ins.	Ins.
4	2	2	4	$\frac{1}{4}$	10
5	3	0	4	$\frac{1}{4}$	10
6	3	10	4	$\frac{1}{4}$	7
7	4	8	5	$\frac{1}{4}$	7
8	5	6	5	$\frac{1}{4}$	5
9	6	4	6	$\frac{1}{4}$	5
10	7	2	6	$\frac{3}{8}$	5
11	8	0	6	$\frac{3}{8}$	4

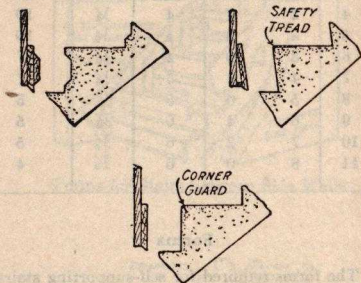
Forms

The forms required for self-supporting stairs are shown in the sketch. They consist of a panel of $\frac{7}{8}$ -inch tongue and groove sheathing cleated together, and about 12 to 14 inches wider on each side than the stairs. This panel is supported on 4 x 4's longitudinally, which in turn are supported on 4 x 4's bents as shown. The planks forming the side forms are nailed to the panels and braced on the outside.

Construction

The entire slab should be poured at one time. The longitudinal reinforcement should be placed before the forms for the risers are attached and the rods in the edge of the steps placed when the concrete is poured. The mixture used should be 1:2:4. The placing of the body of the concrete should be followed at once by the $\frac{3}{4}$ -inch surfacing.

The side and riser forms can be removed 24 hours after the concrete is poured, but the forms and shoring supporting the stair slab should be left in place at least four weeks.



Stair Construction

The sketch above shows three types of riser forms which have proven satisfactory.

Where unusual traffic conditions exist, as in railroad stations and factories, metal treads are used.

Bricks to Crush

Bricks weigh 112 lbs. per cubic foot and will crush at 450 lbs. per square inch. Therefore, a column 12 x 12 inches, 580 feet high, would crush under its own weight.

Brick Piers Weight They Will Carry in Tons

Inch Square Pier	Height in feet of Pier		
	6	8	10
6 x 6	2	1½	1
6 x 8	3	2½	2
8 x 8	4	3½	3
8 x 12	5	4½	5
12 x 12	6	5½	5½
12 x 16	7	6	5
16 x 16	9	8	7

Number of Bricks Required to Construct any Building

(Reckoning 7 bricks to each superficial foot.)

Super- ficial feet of Wall	Number of Bricks to Thickness					
	4 in.	8 in.	12 in.	16 in.	20 in.	24 in.
1	8	15	23	30	38	45
2	15	30	45	60	75	90
3	23	45	68	90	113	135
4	30	60	90	120	150	180
5	38	75	113	150	188	225
6	45	90	135	180	225	270
7	53	105	158	210	263	315
8	60	120	180	240	300	360
9	68	135	203	270	338	405
10	75	150	225	300	375	450
20	150	300	450	600	750	900
30	225	450	675	900	1,125	1,350
40	300	600	900	1,200	1,500	1,800
50	375	750	1,125	1,500	1,875	2,250
60	450	900	1,350	1,800	2,250	2,700
70	525	1,050	1,575	2,100	2,625	3,150
80	600	1,200	1,800	2,400	3,000	3,600
90	675	1,350	2,025	2,700	3,375	4,050
100	750	1,500	2,250	3,000	3,750	4,500

Safe Load in Tons
That a 6", 8", and 12" Steel I Beam will
carry

Span in feet	TONS		
	6" I Beam	8" I Beam	12" I Beam
10	4	7½	18
12	3¼	6¼	16
14	2¾	5½	14
16	2½	4¾	12
18	2	4¼	10½
20		3¾	9½
22			8

Hard Pine Beams and Girders
What They Will Carry in Tons

Size	Length in feet						
	6	8	10	12	14	16	18
2 x 6	1	¾					
3 x 6	1½	1	¾	½			
4 x 6	2	1½	1¼	1	½		
6 x 6	3	2½	2	1½	1	½	
8 x 8	5½	5	4½	3	2½	2	1

Load in Tons
That Common Gas-Pipe Posts Will Carry

Size of Pipe in inches	Length of Pipe in feet				
	8	9	10	12	14
2	4	3	2	1	
3	8	7	6	5	4
4	12	10	8	6	5
5	16	14	12	10	8
6	20	18	16	14	12
7	24	22	20	18	16
8	28	24	22	20	18

Load in Tons That a Yellow Pine Post Will Carry

Size inches	Length in feet					
	8	10	12	14	16	18
4 x 4	4	3	2	1		
5 x 5	5	4	3	2	1	
6 x 6	6	5	4	3	2	1
7 x 7	7	6	5	4	3	2
8 x 8	8	7	6	5	4	3
9 x 9	9	8	7	6	5	4

Bins and Boxes for Grain

A box 2 x 9 inches, $6\frac{1}{2}$ inches deep, one peck.

A box 12 x 12 inches, $7\frac{1}{2}$ inches deep, $\frac{1}{2}$ bushel.

A box 14 x 14 inches, 11 inches deep, 1 bushel.

A box 30 x 30 inches, 12 inches deep, 5 bushel.

A box 3 x 4 feet, 25 inches deep, 20 bushel.

A box 3 x 5 feet, 30 inches deep, 30 bushel.

Bins and Boxes for Apples and Potatoes

Box or bin 2 x 3 feet, 16 inches deep, 5 bushel.

Box or bin 3 x 4 feet, 24 inches deep, 15 bushel.

Box or bin 3 x 4 feet, 32 inches deep, 20 bushel.

Box or bin, $3\frac{1}{2}$ x 5 feet, $32\frac{3}{4}$ inches deep, 30 bushel.

Bins for Coal

A bin 4 x $4\frac{1}{2}$ feet, 2 feet deep, one ton.

A bin 4 x 6 will hold a ton for every 18 inches high, 6 x 6 feet will hold a ton for every 12 inches of depth.

Painters' Department

The best way to find the tints that will blend with each other, when you paint your house, is to find a pansy with colors that suit your taste. Use the dominant color in the flower for the sidings, the next prominent color for the corner boards, cornice, etc., and the high-color tints for the panels, brackets, ornamental shingles, carvings, etc.

If you use fairly good judgment the building will look well colored from any flower you select.

When through with the paint brush, work it out on a board till it is as free from paint and as clean as you can get it, and then put it away to dry.

To soften the brush to use again, immerse in boiled oil to the top of the bristles, heat it and work the brush in the hot oil till it is soft.

To soften putty on an old window, to remove a broken light of glass, rub an iron rod, heated white, along it.

Walnut Stain for Wood

Water, 1 gallon; Vandyke brown, 10 ounces; bichromate of potash, 1 ounce; washing soda, 6 ounces; boil 10 minutes. Immerse the article or apply with a brush, as desired.

To Ebonize Wood

Mix lampblack with good French polish and apply in the usual way. The lampblack may be collected on a piece of tin held over a kerosene lamp or a lighted candle.

How to Gild Small Steel Tools

Pour some of the ethereal solution of gold into a glass dish and dip into it the blade of

the tool, or a new penknife, razor, lancet, etc. Withdraw the instrument and allow the ether to evaporate.

The blade will then be found covered with a beautiful coat of gilt. The tools may be moistened with a clean rag or a small piece of very dry sponge, dipped in the ether, and the same effect will be produced.

Gold Bronze for Furniture

Mix copal varnish with gold-colored bronze powder. This is made from bisulphate of tin.

Hard Drying Putty

Mix dry white lead with Japan and rubbing varnish, equal parts, to the proper consistency; beating it with a small mallet to bruise the lump. Keep it when not in use in water to prevent it drying.

Mixings:

Red and Black.....	Brown
Red and Yellow.....	Orange
White and Brown.....	Chestnut
White, Blue and Lake.....	Purple
Blue and Lead.....	Pearl
White and Carmine.....	Pink
Indigo and Lamp Black.....	Silver Gray
White and Lamp Black.....	Lead
Black and Venetian Red.....	Chocolate
White and Yellow.....	Straw
White and Green.....	Bright Green

To find how much paint is required for a given surface, divide the square feet by 200 for two coats. The answer will be in gallons. A gallon will cover 300 square feet old work and 350 square feet new work, approximately.

Facts for Painters

The cost of painting is estimated by the yard and depends on number of coats, quality of material and workmanship, and condition of surface to be covered. It is impossible to give a rule that will apply in all cases. The following is an approximate rule: Divide the number of square feet of surface by 200, the result will be the number of gallons of liquid paint required to give two coats; or, divide by 18 and the result will be the number of pounds of pure ground white lead required to give three coats.

A pound of paint covers 4 sq. yds. the first coat; or 6 sq. yds each coat following.

A gallon of tar and a pound of pitch covers 12 sq. yds. the first coat; or 17 sq. yds. each coat following.

Allow for regular size blinds about 9 lbs. of lead and 1 gal. oil per dozen blinds. This is a fair day's work for one man.

Lumber Table

Showing the Number of Feet Board Measure

Size in Inches	Length, Feet							
	10	12	14	16	18	20	22	24
1 x 2	1 $\frac{2}{3}$	2	2 $\frac{1}{3}$	2 $\frac{2}{3}$	3	3 $\frac{1}{3}$	3 $\frac{2}{3}$	4
1 x 3	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6
1 x 4	3 $\frac{1}{3}$	4	4 $\frac{2}{3}$	5 $\frac{1}{3}$	6	6 $\frac{2}{3}$	7 $\frac{1}{3}$	8
1 x 5	4 $\frac{1}{6}$	5	5 $\frac{5}{6}$	6 $\frac{2}{3}$	7 $\frac{1}{2}$	8 $\frac{1}{3}$	9 $\frac{1}{6}$	10
1 x 6	5	6	7	8	9	10	11	12
1 x 7	5 $\frac{5}{6}$	7	8 $\frac{1}{6}$	9 $\frac{1}{3}$	10 $\frac{1}{2}$	11 $\frac{2}{3}$	12 $\frac{5}{6}$	14
1 x 8	6 $\frac{2}{3}$	8	9 $\frac{1}{3}$	10 $\frac{2}{3}$	12	13 $\frac{1}{3}$	14 $\frac{2}{3}$	16
1 x 10	8 $\frac{1}{3}$	10	11 $\frac{2}{3}$	13 $\frac{1}{3}$	15	16 $\frac{2}{3}$	18 $\frac{1}{3}$	20
1 x 12	10	12	14	16	18	20	22	24
1 x 14	11 $\frac{2}{3}$	14	16 $\frac{1}{3}$	18 $\frac{2}{3}$	21	23 $\frac{1}{3}$	25 $\frac{2}{3}$	28
1 x 16	13 $\frac{1}{3}$	16	18 $\frac{2}{3}$	21 $\frac{1}{3}$	24	26 $\frac{2}{3}$	29 $\frac{1}{3}$	32
1 x 18	15	18	21	24	27	30	33	36
1 x 20	16 $\frac{2}{3}$	20	23 $\frac{1}{3}$	26 $\frac{2}{3}$	30	33 $\frac{1}{3}$	36 $\frac{2}{3}$	40
1 $\frac{1}{4}$ x 4	4 $\frac{1}{6}$	5	5 $\frac{5}{6}$	6 $\frac{2}{3}$	7 $\frac{1}{2}$	8 $\frac{1}{3}$	9 $\frac{1}{6}$	10
1 $\frac{1}{4}$ x 6	6 $\frac{1}{4}$	7 $\frac{1}{2}$	8 $\frac{3}{4}$	10	11 $\frac{1}{4}$	12 $\frac{1}{2}$	13 $\frac{3}{4}$	15
1 $\frac{1}{4}$ x 8	8 $\frac{1}{3}$	10	11 $\frac{2}{3}$	13 $\frac{1}{3}$	15	16 $\frac{2}{3}$	18 $\frac{1}{3}$	20
1 $\frac{1}{4}$ x 10	10 $\frac{5}{12}$	12 $\frac{1}{2}$	14 $\frac{7}{12}$	16 $\frac{2}{3}$	18 $\frac{3}{4}$	20 $\frac{5}{8}$	22 $\frac{11}{12}$	25
1 $\frac{1}{4}$ x 12	12 $\frac{1}{2}$	15	17 $\frac{1}{2}$	20	22 $\frac{1}{2}$	25	27 $\frac{1}{2}$	30
1 $\frac{1}{2}$ x 4	5	6	7	8	9	10	11	12
1 $\frac{1}{2}$ x 6	7 $\frac{1}{2}$	9	10 $\frac{1}{2}$	12	13 $\frac{1}{2}$	15	16 $\frac{1}{2}$	18
1 $\frac{1}{2}$ x 8	10	12	14	16	18	20	22	24
1 $\frac{1}{2}$ x 10	12 $\frac{1}{2}$	15	17 $\frac{1}{2}$	20	22 $\frac{1}{2}$	25	27 $\frac{1}{2}$	30
1 $\frac{1}{2}$ x 12	15	18	21	24	27	30	33	36
2 x 4	6 $\frac{2}{3}$	8	9 $\frac{1}{3}$	10 $\frac{2}{3}$	12	13 $\frac{1}{3}$	14 $\frac{2}{3}$	16
2 x 6	10	12	14	16	18	20	22	24
2 x 8	13 $\frac{1}{3}$	16	18 $\frac{2}{3}$	21 $\frac{1}{3}$	24	26 $\frac{2}{3}$	29 $\frac{1}{3}$	32
2 x 10	16 $\frac{2}{3}$	20	23 $\frac{1}{3}$	26 $\frac{2}{3}$	30	33 $\frac{1}{3}$	36 $\frac{2}{3}$	40
2 x 12	20	24	28	32	36	40	44	48

Tables Convenient for Taking Inside Dimensions

A box 24 x 24 x 14.7 inches will hold a barrel of $31\frac{1}{2}$ gallons.

A box 15 x 14 x 11 inches will hold 10 gallons.

A box $8\frac{1}{4}$ x 7 x 4 inches will hold a gallon.

A box 4 x 4 x 3.6 inches will hold a quart.

A box 24 x 28 x 16 inches will hold five bushels.

A box 16 x 12 x 11.2 inches will hold a bushel.

A box 12 x 11.2 x 8 inches will hold a half-bushel.

A box 7 x 6.4 x 12 inches will hold a peck.

A box 8.4 x 8 x 4 inches will hold a half-peck, or four dry quarts.

A box 6 x 5 3-5 x 4 inches will hold a half-gallon.

A box 4 x 4 x 1.8 inches will hold a pint.

Estimates of Materials

$3\frac{1}{2}$ barrels of lime will do 100 square yards plastering, two coats.

2 barrels of lime will do 100 square yards plastering, one coat.

$1\frac{1}{2}$ bushels of hair will do 100 square yards plastering.

$1\frac{1}{4}$ yards of good sand will do 100 square yards plastering.

$\frac{1}{3}$ barrel of plaster (stucco) will hard-finish 100 square yards plastering.

1 barrel of lime will lay 1,000 bricks. It takes good time to do it.

2 barrels of lime will lay 1 cord rubble stone.

$\frac{1}{2}$ barrel of lime will lay 1 perch rubble stone (estimate $\frac{1}{4}$ cord to perch).

To every barrel of lime estimate about $\frac{5}{8}$ yards of good sand for plastering and brick work.

Wood Measure

To find the contents of cord wood: multiply the length, width and height together and divide the product by 128.

How many cords in a pile of wood 4 feet wide, 5 feet high, and 24 feet long? $4 \times 5 \times 24 = 480$ (cubic feet) $\div 128 = 3\frac{3}{4}$ cords.

To find the circumference of a circle: multiply the diameter by 3.1416.

To find the area of a circle: multiply the square of the diameter by .7854.

To find the surface of a globe: multiply the square of the diameter by 3.1416

To find the solidity of a globe multiply the cube of the diameter by .5236.

The U. S. Standard gallon measures 231 cubic inches and contains $8\frac{1}{3}$ lbs. of distilled water.

A cubic foot of water weighs $62\frac{1}{2}$ lbs. (salt water, 64.3 lbs.) and contains 1,728 cubic inches, or nearly $7\frac{1}{2}$ gallons U. S. Standard.

To evaporate one cubic foot of water requires the consumption of $7\frac{1}{2}$ lbs. of ordinary coal; or about 1 lb. of coal to 1 gallon of water.

The average consumption of coal for steam boilers is 12 pounds per hour for each square foot of grate.

The U. S. Standard bushel measures 2,150.42 cubic inches, or nearly $1\frac{1}{4}$ cubic feet.

Twenty-eight bushels (of 5 pecks) or 43.56 cubic feet of coal = 1 ton, 2,240 lbs.

One cubic foot of anthracite coal weighs about 53 lbs.

One cubic foot of bituminous coal weighs about 47 to 50 lbs.

One ton of coal is equivalent to two cords of wood for steam purposes.

WEIGHTS AND MEASURES

Troy Weight

24 grains = 1 pwt. 12 ounces = 1 pound.
20 pwts. = 1 ounce.

Used for weighing gold, silver and jewels.

Apothecaries' Weight

20 grains = 1 scruple. 8 drams = 1 ounce.
3 scruples = 1 dram. 12 ounces = 1 pound.

The ounce and pound in this are the same as in Troy weight.

Avoirdupois Weight

27 $\frac{1}{2}$ grains = 1 dram 4 quarters = 1 cwt.
16 drams = 1 ounce. 2,000 lbs. = 1 short ton.
16 ounces = 1 pound. 2,240 lbs. = 1 long ton.
25 pounds = 1 quarter.

Dry Measure

2 pints = 1 quart. 4 pecks = 1 bushel.
8 quarts = 1 peck. 36 bushels = 1 chaldron

Liquid Measure

4 gills = 1 pint. 31 $\frac{1}{2}$ gallons = 1 bbl.
2 pints = 1 quart. 2 bbls. = 1 hogshead.
4 quarts = 1 gallon.

Time Measure

60 seconds = 1 minute 24 hours = 1 day.
60 minutes = 1 hour. 7 days = 1 week.
28, 29, 30 or 31 days = 1 calendar month
(30 days = 1 month in computing interest).
365 days = 1 year 366 days = 1 leap year.

Circular Measure

60 seconds = 1 minute. 30 degrees = 1 sign.
60 minutes = 1 degree 90 degrees = 1 quad't.
4 quadrants = 12 signs, or 360 degrees = 1 circle.

Long Measure

12 inches = 1 foot. 40 rods = 1 furlong.
3 feet = 1 yard. 8 furlongs = 1 sta. mile.
5 $\frac{1}{2}$ yards = 1 rod. 3 miles = 1 league.

Cloth Measure

$2\frac{1}{4}$ inches = 1 nail. 4 quarters = 1 yard.
4 nails = 1 quarter.

Mariners' Measure

6 feet = 1 fathom. 5,280 = feet 1 sta. mi.
120 fathoms = 1 cable'th 6,085 feet = 1 naut. mi.
 $7\frac{1}{2}$ cable lengths = 1 mile.

Miscellaneous

3 inches = 1 palm. 18 inches = 1 cubit.
4 inches = 1 hand 21.8 in. = 1 Bible cubit.
6 inches = 1 span. $2\frac{1}{2}$ ft. = 1 military pace.

Square Measure

144 sq. in = 1 sq. foot 40 sq. rods = 1 rood.
9 sq. feet = 1 sq. yd. 4 roods = 1 acre.
 $30\frac{1}{4}$ sq. yds. = 1 sq. rod 640 acres = 1 sq. mile.

Surveyors' Measure

7.92 inches = 1 link. 4 rods = 1 chain.
25 links = 1 rod.
10 square chains or 160 square rods = 1 acre.
640 acres = 1 sq. mile.
36 sq. miles (6 miles sq.) = 1 township.

Cubic Measure

1,728 cub. in. = 1 cub. ft. 128 c. ft. = 1 cord(wd)
27 cub. ft. = 1 cub. yd. 40 c. ft = 1 ton (shpg)
2,150.42 cub. inches = 1 standard bushel.
268.8 cubic inches = 1 standard gallon.
1 cubic foot = about four-fifths of a bushel.

For looking in deep and dark places, all that is necessary is a small mirror. Throw a reflection by using the sun or a good lamp-light and you can look into a gun barrel, small tube, a well or cistern, and also see the bottom of rivers and ponds. You can improve the means of looking into deep or dark places by scratching a small oval hole in the silvering so you can look through the glass at this point.

*If you want your business done,
go; if not, send.*

*A dull man bores you.
A sharp man skins you.*

*Don't tell us of your strength,
education, money, or genius. What
we want to know is—What are you
doing with it?*

Good nature is good business.

*Be sure you are wrong, and then
back up.*

*The man who holds his temper
also holds the trump card.*

*It doesn't help some men to get
swear words out of their systems
because they fill right up again.*

MR. CARPENTER:

Did it ever occur to you that if your Boss pays you 50c. per hour and you earn only 52c. for him, 2c. more per hour than he pays you, that you are not a very good man for him to keep? You have got to earn for him at least 10c. per hour, and the more you earn for him the better for you. And, the main tool that you use, and it must be good, is your saw. A sheet-iron saw will not increase your pay.

The man who owns a full set of high-grade Simonds Hand and Rip Saws wins the confidence of the Boss because he knows how to appreciate good tools.

Medical Hints

A good liniment for old sores, sprains, bruises, etc., but not for fresh cuts or internal use, may be compounded of the following ingredients:

Tincture of opium, $\frac{1}{2}$ ounce; tincture of camphor, $\frac{1}{2}$ ounce; chloroform, $\frac{1}{2}$ ounce; arnica, 3 ounces; glycerine, 1 ounce.

In case of a sprain, bathe the injured part in as hot water as you can till the swelling is considerably or wholly reduced; thoroughly dry the injured part and apply the liniment with the hand till it feels greasy. Repeat the treatment three times daily, if a severe injury, and your wound will speedily become healed.

DROWNING.—Send for doctor, blankets and dry clothing. Take off wet clothing from upper part of body. Lay patient on his back, with his head on a folded coat for cushion. Draw tongue out of mouth and hold it there. A second person kneels at patient's head and takes hold of both his arms just below the elbows. He then draws them upwards over the patient's head and holds them in that position until he counts two; this draws air into the lungs. He then lowers arms to side again and presses them firmly inwards, holding them there until he has again counted two; this forces air out of the lungs. Go on doing this until doctor arrives or until patient breathes naturally. As soon as he does so, rub the limbs in an upward direction with the dry hands, or, better still, with hot flannels. Put patient in bed between blankets, surrounded with hot water bottles. May give him wine or brandy when quite sensible.

RUPTURE, OR "BREAK OF THE BODY."—Try and push it back with flat hand; keep

man on his back. Cold, wet clothes laid over rupture will, perhaps, aid its return.

BROKEN RIB.—Causes intense pain when patient breathes; bind roller towel firmly around chest, fastening with pins, or sewing.

BROKEN COLLAR-BONE.—Bend arm over front of chest; place it in a sling; bind it in that position by scarf going around chest, outside sling.

DOG BITES.—Tie a handkerchief or a cord tightly around limb above wound; suck the wound.

FLESH WOUNDS.—Uncover wound; wash it with clean water; wring out a clean handkerchief, or some lint, in cold water, and lay it over the wound. Then bind in position with handkerchief.

FAINTING.—From heat, exhaustion, or loss of blood. Keep head low; undo clothing about neck; plenty of fresh air; dash cold water on face and chest; smelling salts, carefully used; a little brandy when sensibility has returned, excepting in case of sunstroke, and where means have not been taken to prevent further bleeding.

INSENSIBILITY.—From blows or wounds on the head. Send at once for doctor or take patient to hospital, keeping him on his back with head raised; undo clothing around neck; do not give brandy.

INSENSIBILITY.—From being buried in falls of earth, or breathing foul gas; proceed as in drowning.

FITS.—1. If snoring and face flushed, undo clothing around neck, keep head raised, and

dash cold water on top of head; hot water bottles to feet. Send for doctor; do not give brandy.

2. If foaming at mouth and convulsed, undo clothing, apply smelling salts, and prevent patient hurting himself until conscious again.

Useful Suggestions in Cases of Accident to Mechanics

BLEEDING.—If blood spurts from wound, an artery is divided; bind limb tightly above wound with India rubber tubing, strap, handkerchief or scarf, or bend the limb forcibly at next joint above wound or press flat hand or stone where blood is flowing. If blood flows freely, but does not spurt, a vein is divided; then apply same measures as in case of wounded artery, but below the wound. If scalp wounded, make a pad of cloth or waste, and bandage very tightly over wound with folded pocket handkerchief.

BURNS OR SCALDS.—Apply lint, cotton, wool or waste soaked in oil and lime water, and bind the same on with a handkerchief. If necessary to remove clothes, cut them off by running knife or scissors along seams.

BROKEN LEG.—Pull on leg steadily and firmly until it is of same length as sound one. Roll up a coat or empty sack into form of a cushion, carefully place leg upon it, then bind the two together with scarfs or handkerchiefs. Do not lift patient from the ground until stretcher is close at hand. Take great pains by careful lifting, to prevent broken bone coming through the skin.

BROKEN THIGH.—Take hold of ankle and, by steady traction, pull limb to same length

as sound one; another person must then tie knees together, and afterwards the ankles. Both limbs should be laid over a sack of straw or folded coat, so as to bend the knees. Patient should on no account be moved until stretcher or cart is close at hand.

BROKEN ARM.—Pull arm to length of sound one. Apply two splints, one outside and the other inside, binding them firmly on with pocket handkerchiefs. The best splints are made by folding newspapers to necessary length, binding them above and below seat of fracture; anything hard and light of suitable size would act equally well; for instance, wood, pasteboard, twigs, leather, etc.

**IF YOU DO NOT OWN A
SIMONDS SAW
YOU CAN NOT SAY
YOU HAVE
THE BEST SAW MADE**

SIMONDS HAND SAWS

OUR WARRANTY

The Simonds Hand Saws are guaranteed in temper, quality of steel and workmanship throughout, to be as perfect goods as human skill, best material, and a knowledge of manipulating steel, dating back to 1832 can produce.

If a Simonds Hand Saw is found defective in any particular, it will be exchanged by the dealer from whom it was purchased.

The carpenter runs absolutely no risk when buying a Simonds Hand Saw.



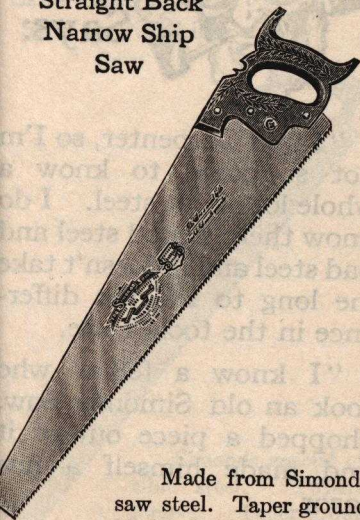
Uncle Si Says:

“If my brother carpenters knew as much about Simonds Saws as I do, I’m ready to bet almost anything they’d have one mighty soon. Because a Simonds certainly does go through a board fast and straight; it was made to cut not to develop biceps. Then, too,—it beats anything I ever saw for staying sharp. You don’t have to file it so often. I hope you fellows will take my advice and at least *look* at the Simonds Saw.”

SIMONDS No. 371

"Blue Ribbon"

Straight Back
Narrow Ship
Saw



Made from Simonds
saw steel. Taper ground
blade. Carved applewood
handle. A distinctive high-grade saw.



Uncle Si Says:

“I’m a Carpenter, so I’m not supposed to know a whole lot about steel. I do know there’s good steel and bad steel and it doesn’t take me long to tell the difference in the tools I use.

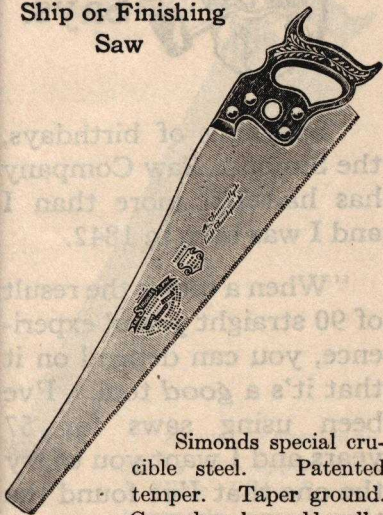
“I know a fellow who took an old Simonds Saw, chopped a piece out of it and made himself a fine razor.

“The reason a Simonds Saw holds its edge and lasts so long is because there’s better steel in it.”

SIMONDS No. 372

"Blue Ribbon"

Skew Back Narrow
Ship or Finishing
Saw



Simonds special crucible steel. Patented temper. Taper ground. Carved applewood handle.

A leader among Simonds Saw Steel products.



Uncle Si Says:

“Speaking of birthdays, the Simonds Saw Company has had ten more than I and I was born in 1842.

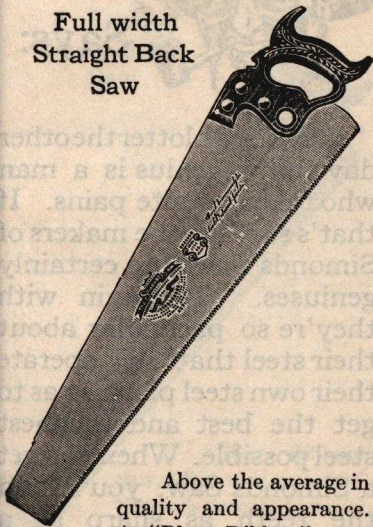
“When a tool is the result of 90 straight years’ experience, you can depend on it that it’s a *good* tool. I’ve been using saws for 57 years and I want you to try the one that I’ve found the best,—the Simonds.

“Be curious enough to look them over.”

SIMONDS No. 71

“Blue Ribbon”

Full width
Straight Back
Saw



Above the average in
quality and appearance.
A “Blue Ribbon” saw.
Accurately ground and
tempered. Applewood handle. Abso-
lutely guaranteed.



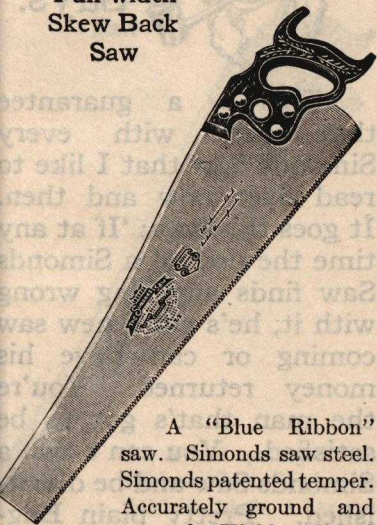
Uncle Si Says:

“I read on a blotter the other day that a genius is a man who takes infinite pains. If that’s so, then the makers of Simonds Saws are certainly geniuses. To begin with they’re so particular about their steel that they operate their own steel plant, so as to get the best and toughest steel possible. When you get a Simonds Saw, you’ll find the teeth as sharp as a needle, and they’ll do an awful lot of cutting before they need filing. You know the store that sells Simonds Saws.”

SIMONDS No. 72

“Blue Ribbon”

Full width
Skew Back
Saw



A “Blue Ribbon”
saw. Simonds saw steel.
Simonds patented temper.
Accurately ground and
tapered. Highly polished
and carved applewood handle. A
most reliable saw.



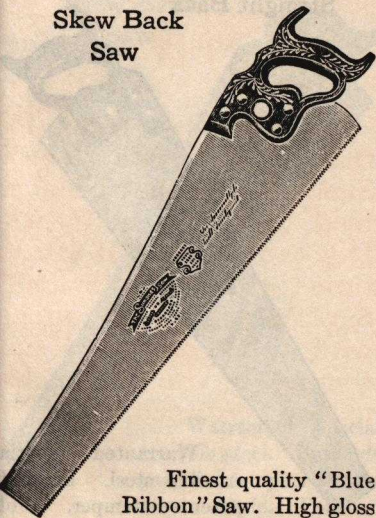
Uncle Si Says:

“There’s a guarantee that goes with every Simonds Saw that I like to read over now and then. It goes this way: ‘If at any time the user of a Simonds Saw finds anything wrong with it, he’s got a new saw coming or can have his money returned. You’re the man that’s got to be satisfied. You can’t own a Simonds Saw and be dissatisfied.’ Pretty plain English, isn’t it? But then the Simonds is so good that it can stand a strong guarantee like that.”

SIMONDS No. 62

“Blue Ribbon”

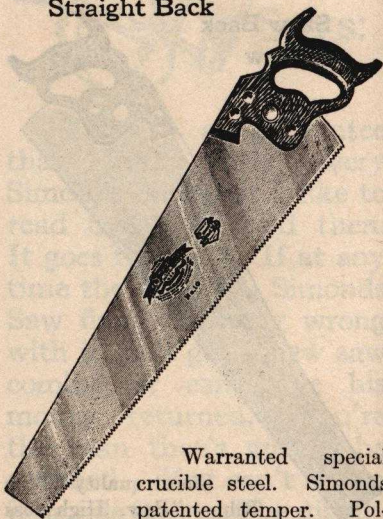
Skew Back
Saw



Finest quality “Blue Ribbon” Saw. High gloss finished blade. Applewood handle carved on flat and grip. A distinctive saw both in quality and finish.

SIMONDS No. 10

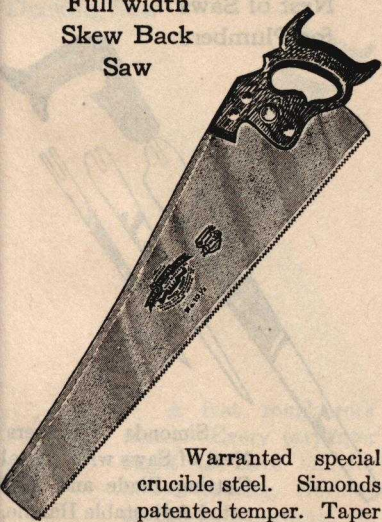
Medium width
Straight Back



Warranted special crucible steel. Simonds patented temper. Polished beech handle. A moderately priced saw covered by the broadest Simonds warranty as to quality and workmanship.

SIMONDS No. 10 $\frac{1}{2}$

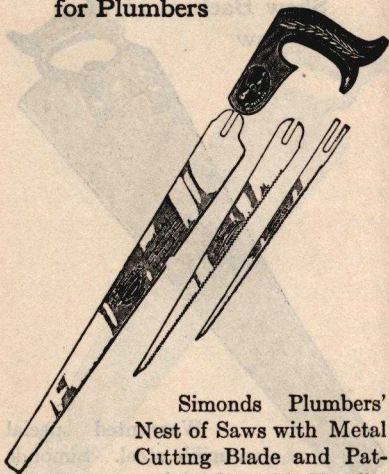
Full width
Skew Back
Saw



Warranted special crucible steel. Simonds patented temper. Taper ground blade. Polished beech handle. Simonds warranty covers this saw. An excellent saw for the home tool kit or for the young carpenter.

SIMONDS No. 83

Nest of Saws
for Plumbers

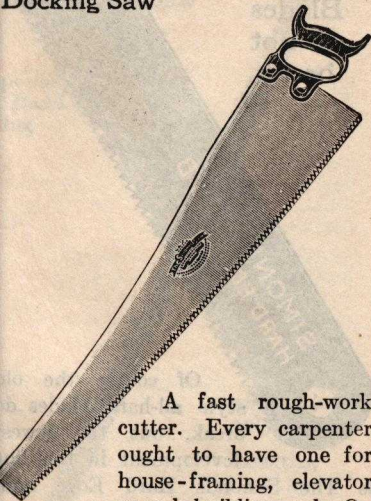


Simonds Plumbers'
Nest of Saws with Metal
Cutting Blade and Pat-
ented Adjustable Handle.

Complete, including Handle, 10-inch
Keyhole Blade, 12-inch Compass
Blade, and 18-inch Nail-Cutting Blade.
For cutting old boards containing
nails. Every contractor needs a set.

SIMONDS No. 348

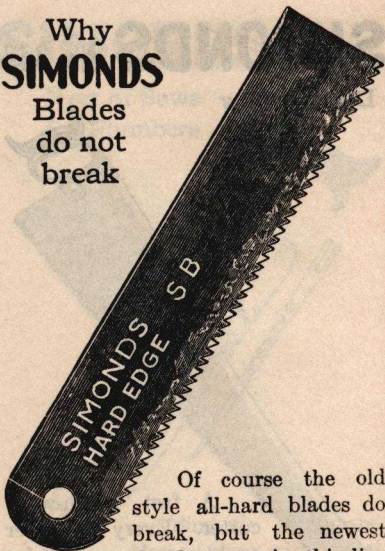
Docking Saw



A fast rough-work cutter. Every carpenter ought to have one for house-framing, elevator or scale building work. On big cutting it will cut three times as fast as any Hand saw. $4\frac{1}{2}$ points to the inch. Taper ground blade 30" or 24" long. Metal handle.

Why **SIMONDS**

Blades
do not
break



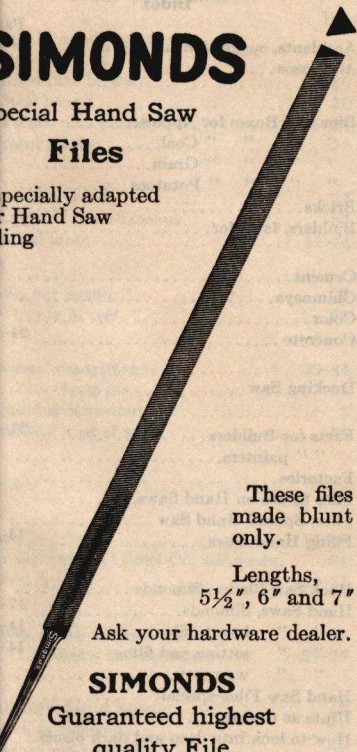
Of course the old style all-hard blades do break, but the newest development in this line is The Simonds Hard Edge non-breaking blade. It is hardened well below the base of the cutting teeth and therefore cuts metal easily. The softer back permits bending without breaking. Try these Blades.

Ask your Dealer

SIMONDS

Special Hand Saw Files

pecially adapted
r Hand Saw
ling



These files
made blunt
only.

Lengths,
5½", 6" and 7"

Ask your hardware dealer.

SIMONDS
Guaranteed highest
quality File

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Simonds Saw and Steel Company

Hardware Department

Fitchburg, Mass.

1350 Columbia Road	Boston, Mass.
127 So. Green St.	Chicago, Ill.
109 Lafayette St.	New York City
Mt. Elliott and E. Fort Streets	Detroit, Mich.
420 Canal St.	New Orleans, La.
239 Court Ave.	Memphis, Tenn.
100 So. Forsythe St.	Atlanta, Ga.
85 First St.	Portland, Ore.
228 First St.	San Francisco, Cal.
1934 First Ave., So.	Seattle, Wash.

Fulwood House, Fulwood Place
High Holborn,
London, W. C. No. 1, England

Simonds Canada Saw Co., Limited

St. Remi Street and Acorn Avenue	Montreal, Quebec
554 Beatty St.	Vancouver, B. C.
55 Water St.	St. John, N. B.
1550 Dundas St., W.	Toronto, Ont.

Simonds Steel Mill

Lockport, N. Y.

We Have Discontinued the Manufacture of Hand Saws

as shown on pages 45 to 58
of this booklet

We Have Added the Manufacture of Electric Hand Saws

and also make Circular, Band
and Cross-cut Saws, Planer
Knives and the items shown in
this booklet on pages 59 to 61,
Docking Saws, Hack Saw
Blades, and Files

*Address inquiries for these
products to any of our offices*

**SIMONDS SAW AND
STEEL COMPANY**

